

POLI 7964 Pooled Cross-Sectional Time Series Fall 2011

Basic Information

Class meets: Thursdays, 1:40-4:30 Prescott Hall

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Office hours: Tuesday 1:30-4:00 pm and by appointment.

associated with OLS. Finally, we will do a quick introduction to time series. Please note that this is not a time-series class. We will only spend one week talking specifically about time series; rather than the semester length treatment necessary for a true introductory time series course. In the second half of the class we will tackle multiple types of models for data that vary across both space and time. We begin this discussion with models developed for continuous dependent variables such as fixed-effect, random effects, gls-based models, and models with lagged dependent variables. The final type of models we will consider are those developed for binary dependent variables.

This class takes both a technical and applied approach to the study of methods. Each class will consist of lecture, discussion, and applied activities. The lectures will be a combination of the theoretical and technical components underlying the models and application of the methods to social science research. The term lecture can actually be misleading. I think that the best way for us learn methods is to have a discussion about them. So I encourage questions and conversations about the material we are covering during lectures. We will apply our technical knowledge to the subject matter in two ways. This class does not have a lab section associated with it, so we will devote part of each class to a "Lab" session. In these sessions we will cover general topics about STATA, model specification and presentation of data. We will also go over specific commands related to the models that we discussed in lecture. We will also hold discussions about the methods used in applied research articles. Expectations regarding these discussions are detailed below.

Shut your cell phones off before coming to class. It is disturbing to me and your fellow students. I reserve the right to confiscate phones if this becomes a problem. The use of laptops are allowed (actually encouraged) during the lab sessions. The use of laptops during the rest of the class is highly discouraged. It will be difficult to take notes on a laptop during lecture and discussion.

All students are expected to work independently on all assignments. Group and collaborative work is not permitted unless specific instructions are given. Proper citations must be used to acknowledge any ideas, concepts, theories, organizational formats, and writing that is not your own. If you are not clear on how to properly give credit to others, please see me before turning in any assignment. All students are required to read and be familiar with the Code of Student Conduct found at www.lib.lsu.edu/judicialaffairs as well as all other university policies and procedures. If you have questions about what constitutes plagiarism see: <http://www.lib.lsu.edu/instruction/plagiarism/html>. I take this issue very seriously and will check all things turned into me for signs of plagiarism.

Students with disabilities: Reasonable accommodations will be made for any student with documented disabilities to ensure that the student is able to participate in class to the best of their abilities. If you anticipate needing any type of accommodation in this course or have questions about physical access, please tell the instructor as soon as possible. Reasonable accommodations will be made for all students with disabilities, but it is the student's responsibility to inform the instructor early in the term. It is also the student's responsibility to register with the disability service office on campus. Do not wait until just before an exam to decide you want to inform the instructor of a learning disability; any accommodations for disabilities must be arranged well in advance.

If you did not attend the first day of class and/or added the class late, all class policies apply equally to you. It is your responsibility to find out any information gone over during the class periods you missed. Deadlines **will not** be adjusted on an individual basis.

Grading

Table 1: Assignments and Due Dates

	Points Available	Due Dates
Participation	15	everyday
Homework	45	See outline below
Poster	20	December 1 st

having read the material and prepared to discuss the different topics. You should always be thinking about how this relates to your research questions and interests. In addition to being an active participant in class, part of the participation grade will be based on presentations of applied readings. Throughout the reading list you will find application readings for some of the topics. You are to select an application reading to read and write a two page summary of the reading and then present the methods and findings. The summaries will be do in class for the day they are listed on the syllabus. While the theory of the paper should be addressed in the summary, the majority of the summary should be about the methods in the paper. You are expected to be an expert on the article you selected for the discussion

due on December 10th by noon. Late papers will be reduced one letter grade for every 30 minutes it is late.

Nagler, Jonathan. 1995. "Coding Style and Good Computing Practices." *The Political Methodologist*. 6(2):2-9. This is available in pdf format online at <http://polmeth.wustl.edu/>. Select The Political Methodologist and the correct volume.

Chapter 1 Wooldreige, Jeffrey M. 2000. *Introductory Econometrics A Modern Approach* South-Western College Publishing Thomson Learning.

Thursday, September 1st APSA { No class but do the readings and homework on your own. Readings:

Chapters 1-4. Gill, Jeffrey. 2006. *Essential Mathematics for Political and Social Research* Cambridge: Cambridge University Press.

Supplemental Readings:

Appendix A and D. Wooldreige, Jeffrey M. 2000. *Introductory Econometrics A Modern Approach* South-Western College Publishing Thomson Learning.

Nanboudiri, Krishnan. 1984. *Matrix Algebra An Introduction* Thousands Oaks, CA: Sage Press.

Thursday, September 8th OLS in Matrix and Review of OLS Readings:

Section 11.10 Wackerly, Dennis D., William Mendenhall II, and Richard L. Scheaffer. *Mathematical Statistics with Applications* 6th edition. Duxbury Thomson Learning.

Chapters 2, 3 & 4. Wooldreige, Jeffrey M. 2000. *Introductory Econometrics A Modern Approach* South-Western College Publishing Thomson Learning.

Supplemental Reading

Chapter 2-3 Greene, William H. 2011. *Econometric Analysis*. 7th Edition. Upper Saddle River, New Jersey. Prentice Hall.

Thursday, September 15th OLS Review

Readings

Chapters 5, 6, & 8. Wooldreige, Jeffrey M. 2000. *Introductory Econometrics A Modern Approach* South-Western College Publishing Thomson Learning.

Supplemental Readings:

Chapter 4-5 Greene, William H. 2011. *Econometric Analysis*. 7th Edition. Upper Saddle River, New Jersey. Prentice Hall.

Thursday, September 22nd Time Series Readings

Chapters 10, 11 and 12. Wooldreige, Jeffrey M. 2000. *Introductory Econometrics A Modern Approach* South-Western College Publishing Thomson Learning.

Supplemental Readings:

Chapters 18. Wooldridge, Jeffrey M. 2000. *Introductory Econometrics A Modern Approach* South-Western College Publishing Thomson Learning.

Thursday, September 29th Overview of Pooled Cross Sectional Time Series

Reading:

Chapter 13 Wooldridge, Jeffrey, 2000. *Introductory Econometrics A Modern Approach* South-Western College Publishing Thomson Learning.

Beck, Nathaniel. 2006. "Time-Series Cross-Section Methods" in *Oxford Handbook of Political Methodology*. <http://www.nyu.edu/gsas/dept/politics/faculty/beck/beck.pdf>.

Bartels, Larry M. 1996. "Pooling Disparate Observations." *American Journal of Political Science* 40(August): 905-42.

Supplemental Readings:

Bartels, Larry. 1999 "Panel Effect in the American National Election Studies." *Political Analysis* 8(Winter):1-20.

Gurland, John and Jayaram Sethuraman. 1995 "How Pooling Failure Data May Reverse Increasing Failure Rates." *Journal of the American Statistical Association* 90(December): 1416-23.

Wilson, Sven and Daniel Butler. 2007. "A Lot More to Do: The Sensitivity of Time-Series Cross-Section Analyses to Simple Alternative Specifications." *Political Analysis* 15(2) :101-123.

Hsiao, Cheng. 2003. *Analysis of Panel Data*, Chapter 1 and Chapter 2.

Nuamah, Nicholas N.N.N. 1986. "Pooling Cross Section and Time Series Data." *The Statistician* 35:345-351.

Greene, William H. 2003. *Econometric Analysis*, 5th edition, sections 13.1-13.2.

Thursday, October 6th Unit Heterogeneity: Fixed- and Random Effects Models

Stimson, James. 1985. "Regression in Space and Time: A Statistical Essay." *American Journal of Political Science* 29:914-947.

Green, Donald P., Soo Yeon Kim, and David H. Yoon. 2001. "Dirty Pool." *International Organization*: 441-468.

Beck, Nathaniel and Jonathan N. Katz. 2001. "Throwing out the Baby with the Bath Water: A Comment on Green, Kim, and Yoon." *International Organization*: pp. 487-495

Chapter 14 Wooldridge, Jeffrey, 2000. *Introductory Econometrics A Modern Approach* South-Western College Publishing Thomson Learning.

Supplemental Readings:

Wooldridge, Jeffrey M. 2002. *Econometric Analysis of Cross Section and Panel Data*, chapter 10.

Cameron and Trivedi, Chapter 21

Greene, William H. 2003. *Econometric Analysis*, 5th edition, sections 13.3-13.4.

Beck, Nathaniel and Jonathan Katz. 2004. "Time-Series-Cross-Section Data: Cross-Sectional Issues." Unpublished Manuscript.

Hsiao, Cheng. 2003. *The Analysis of Panel Data*, Chapter 3.

Application Reading (choose 1):

Zahariadis, Nikolaos. 1997. "Why State Subsidies? Evidence from European Community Countries 1981-1986." *International Studies Quarterly*, 41(2):341-354.

Radcli, Benjamin and Patricia Davis. 2000. "Labor Organization and Electoral Participation in Industrial Democracies." *American Journal of Political Science* 44(1): 132-141.

Smith, Mark A. 2001. "The Contingent Effects of Ballot Initiatives and Candidate Races on Turnout." *American Journal of Political Science* 45(3): 700-706.

Wood, B. Dan. 1998. "The Dynamics of Senatorial Representation, 1952-1991." *The Journal of Politics*, 60(3):705-736.

Thursday, October 13th Fall Break

Thursday, October 20th Random, Fixed-Effects, and other topics.

Zorn, Christopher J.W. 2001. "Estimating Between- and Within-Cluster Covariate Effects, with an Application to Models of International Disputes." *International Interactions*, 27(4):433-445.

Bafumi, Joseph. and Andrew. Gelman. 2006. "Fitting Multilevel Models When Predictors and Group Effects Correlate." Presented at the Annual Meeting of the MPSA, Chicago, IL. http://polmeth.wustl.edu/media/Paper/Bafumi_Gelman_Midwest06.pdf

Honaker, James and Gary King. 2010. "What to Do about Missing Values in Time-Series Cross-Section Data." *American Journal of Political Science* 54: 561-581.

Supplemental Readings:

Bartels, Brandon. 2009. \Beyond 'Fixed versus Random Effects': A Framework for

Fording, Richard. C. 1997. "The Conditional Effect of Violence as a Political Tactic: Mass Insurgency, Welfare Generosity, and Electoral Context in the American States." *American Journal of Political Science* 41(1): 1-29.

Radcli , Benjamin, and Patricia Davis. 2000. "Labor Organization and Electoral Participation in Industrial Democracies." *American Journal of Political Science* 44(1): 132-141.

Smith, Mark A. 2001. "The Contingent Effects of Ballot Initiatives and Candidate Races on Turnout" *American Journal of Political Science* 45(3):700-706.

Thursday, November 10th Non-Continuous Response Variables Readings:

Beck, Nathaniel, Jonathan N. Katz and Richard Tucker. 1998. "Taking Time Seriously: Time-Series-Cross-Section Analysis with a Binary Dependent Variable." *American Journal of Political Science* 42(4): 1260-1288.

Carter, David B. and Curtis S. Signorino. 2010. "Back to the Future: Modeling Time Dependence in Binary Data." *Political Analysis* 18(3): 271-292.

{ Beck, Nathaniel. 2010. "Time is Not A Theoretical Variable" *Political Analysis* 18(3):293-294.

{ Carter, David B. and Curtis S. Signorino. 2010. "Reply to "Time is Not A Theoretical Variable"" *Political Analysis* 18(3): 295-296.

Recommended Readings:

Cameron and Trivedi Chapter 23

Hsiao, Cheng. 2003. *Analysis of Panel Data*, Chapter 7.

Cameron, Colin and Pravin K. Trivedi. 1998. *Regression Analysis of Count Data*. New York: Cambridge University Press. Chapter 9.

Ballinger, Gary A. 2004. "Using Generalized Estimating Equations for Longitudinal Data Analysis." *Organizational Research Methods* 7:127-50.

Neuhaus, J. M., J. D. Kalbfleisch and W. W. Hauck. 1991. "smeron"aa50(of)-3Clust31(er)]TJ 0 -14.

